

Notice of Allowability

Application No.

10/716,164

Examiner

Arthur D Donnelly

Applicant(s)

BRANDT ET AL

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 11/17/03.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 17 November 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 11/17/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 3000

Reasons for Allowance

1. The following is an examiner's statement of reasons for allowance: the prior art of record fails to show or teach a method of changing gear in an automated transmission system of a motor vehicle having a multi-ratio gearbox with an input shaft and an output shaft, a take-up clutch located between the input shaft and an output shaft of an engine, a number of pairs of intermeshing gears and a first predetermined time period the power shifting clutch and/or engine being controlled to reduce the difference between the torque transmitted by the power shifting clutch and the torque produced by the engine so that the synchronization speed and acceleration of the input shaft level off towards zero Schnieder et al. (5,313,856) discloses a multistage transmission has a plurality of gear stages and an additional gear stage which may be engaged to transmit part of the input shaft torque before disengagement of an engaged gear stage. A friction clutch is used to engage the additional stage. Alternatively, a variable-ratio pulley connection may be used for the additional stage synchronization of the transmission input shaft with a gear stage to be engaged is attained by controlling the change in input shaft speed in accordance with a selected

speed gradient, but fails to disclose a first predetermined time period the power shifting clutch and/or engine being controlled to reduce the difference between the torque transmitted by the power shifting clutch and the torque produced by the engine so that the synchronization speed and acceleration of the input shaft level off towards zero. Sakamoto et al. (6,560,521) discloses a control device that at the time of the change-speed, by correcting the torque reducing portion of an output shaft during the change-speed, the revolution number of an input shaft is controlled on the basis of the corrected torque reduction correcting value. Also, the torque of said input shaft is adjusted at the end of the change-speed on the basis of the torque correcting value and Sunaga et al. (6,776,062) discloses a power transmission system capable of preventing a feeling of inertia travel caused by torque transmission interruption, without increasing the axial length of a transmission, thereby improving the speed position-shifting performance of the transmission, includes a plurality of gear pairs and synchromeshes connecting the plurality of gear pairs to an input or output shaft. A driving force assist mechanism supplies the driving force of a prime mover to the output shaft during a shift in speed position and a supplemental driving force has an auxiliary shaft arranged in parallel with

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the input and output shaft. An intermediate gear is connected to the input shaft and integrally formed with the auxiliary shaft. Auxiliary gears are connected to the output shaft and rotatably arranged on the auxiliary shaft. An assist clutch fastens one of the auxiliary gears to the auxiliary shaft during the shift in speed position.

Therefore, in light of the novel disclosure provided for by the present invention, the present claims have been deemed as patentable over prior art relating to multi-ratio gear boxes.

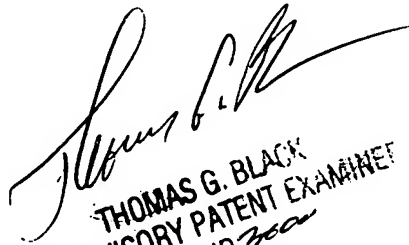
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur Donnelly whose telephone number is (703) 305-0215. The examiner can normally be reached on Monday -Thursday on the first and third weeks of the month and from Monday - Friday on the second and forth weeks of the month from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 300

add

October 30, 2004